



## **PCT**

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## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference				
P 20126 PC 00	FOR FURTHER ACTION See Form PCT/IPEA/416			
International application No.	International filing date (day/month/year)	Priority date (day/month/year)		
PCT/NO2003/000217	26.06.2003	09.07.2002		
International Patent Classification (IPC)		103.07.2002		
F17C13/08 // B63B25/1				
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Applicant				
KNUTSEN OAS SHIPPING	AS et al	T#1		
This report is the international pre Authority under Article 35 and tre	liminary examination report, established by the ansmitted to the applicant according to Article	is International Preliminary Examining 36.		
2. This REPORT consists of a total of	of 3 sheets, including this cover	r sheet.		
3. This report is also accompanied by	y ANNEXES, comprising:			
Z (seem to the applicant	and to the International Bureau) a total of _2			
sheets of the c	lescription, claims and/or drawings which have	e been amended and are the basis of this report		
Administrativ	containing rectifications authorized by this Au relations).	thority (see Rule 70.16 and Section 607 of the		
sheets which	supersede earlier sheets, but which this Author	ity considers contain an amendment that goes		
beyong the gi	sclosure in the international application as filed	i, as indicated in item 4 of Box No. I and the		
Supplemental	Box.			
b (sent to the Internatio	nal Bureau only) a total of (indicate type and n	number of electronic carrier(s))		
<u></u> .	, containing a sequence listing	and/or tables related thereto, in computer		
readable form only, as Administrative Instruc	s indicated in the Supplemental Box Relating to	o Sequence Listing (see Section 802 of the		
	<del></del>			
4. This report contains indications relations of Box No. I Basis of	_			
	the report			
Box No. II Priority				
<u></u> _	ablishment of opinion with regard to novelty, inventive step and industrial applicability			
Box No. IV Lack of				
Box No. V Reasone applicab	d statement under Article 35(2) with regard to illing; citations and explanations supporting suc	novelty, inventive step or industrial		
Box No. VI Certain	documents cited	a statement		
Box No. VII Certain defects in the international application				
Box No. VIII Certain o	to the state of th			
Date of submission of the demand	Date of completion of	of this report		
	1			
29.12.2003	12.08.2004	12.08.2004		
Name and mailing address of the IPEA/SE				
Patent- och registreringsverket	Audionzed officer	ĺ		
Box 5055 S-102 42 STOCKHOLM				
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Form PCT/IPEA/409 (cover sheet) (January	1 leiepnone No. +46	Telephone No. +46 8 782 25 00		

### INTERNATIONAL PRELIVENARY REPORT ON PATENTABILITY

Il tional application No.
PCT/NO2003/000217

Bo	x No. I	Basis of the report				
1.	With regard to the language, this report is based on the international application in the language in which it was filed, unle otherwise indicated under this item.					
		This report is based on a translation from the original language into the following language which is the language of a translation furnished for the purposes of:				
		international search (under Rules 12.3 and 23.1(b))				
		publication of the international application (under Rule 12.4)				
		international preliminary examination (under Rules 55.2 and/or 55.3)				
2.	furnisi	d to the elements of the international application, this report is based on (replacement sheets which have been the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" annexed to this report):				
		the international application as originally filed/furnished				
	$\bowtie$	the description:				
		pages 1-8 as originally filed/fu				
		pages* received by this Authority on				
		pages* received by this Authority on				
	$\boxtimes$	the claims:				
		pages as originally filed/fu				
		pages* as amended (together with any statement) under A pages* received by this Authority on				
		pages* received by this Authority on				
	$\boxtimes$	the drawings:				
	<u></u>	pages 1-5 as originally filed/fu	mished			
		pages* received by this Authority on	msned			
		pages* received by this Authority on				
		a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.				
3.		The amendments have resulted in the cancellation of:				
		the description, pages				
		the claims, Nos.	ļ			
		the drawings, sheets/figs				
		the sequence listing (specify):				
		any table(s) related to the sequence listing (specify):				
4.		This report has been established as if (some of) the amendments annexed to this report and listed below had made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental 70.2(c)).	i not been Box (Rule			
		the description, pages				
		the claims, Nos.				
		the drawings, sheets/figs				
		the sequence listing (specify):				
		any table(s) related to the sequence listing (specify):				
*		applies, some or all of those sheets may be marked "superseded."				

Form PCT/IPEA/409 (Box No. I) (January 2004)

#### INTERNATIONAL PRELIMENARY REPORT ON PATENTABILITY

In tional application No.
PCT/NO2003/000217

Box No. V		Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement			
1.	Statement	:			
	Novel	lty (N)	Claims Claims	1-6	YES NO
	Inven	tive step (IS)	Claims Claims	1-6	YES NO
	Indus	trial applicability (IA)	Claims Claims	1-6	YES NO
	,	<del>-</del>			

2. Citations and explanations (Rule 70.7)

Documents cited in the International Search Report:

D1: FR, A1, 2536373

D2: US, A, 4564109

D3: US, A, 496734

D4: US, A1, 2002084660

The cited documents represent the general state of the art.

The invention defined in amended claims 1-6 is not disclosed by any of these documents. The cited prior art does not give any indication that would lead a person skilled in the art to the claimed device for fixing vertically installed cargo pressure tanks. Therefore, the claimed invention is not obvious to a person skilled in the art.

Accordingly, the invention defined in amended claims 1-6 is novel and is considered to involve an inventive step. The invention is industrially applicable.

#### Claims

1. A device for fixing vertically installed cargo pressure tanks (2), in particular of the type used for sea transport of pressurised petroleum products, where at least two cargo pressure tanks (2) placed in an upright position on a cassette lifting frame (4) constitute a liftable cassette (1), characterized in that the pressure tanks (2) are interconnected by means of an along the cargo pressure tanks (2) movable guide frame (6).

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- 2. A device in accordance with claim 1, characterrized in that the guide frame (6) is arranged to take up horizontal forces from the cargo pressure tanks (2) through abutment against a fixing section (18) in a cargo hold (14) of a ship (12).
- 3. A device in accordance with claim 2, characterrized in that at least one contact surface (19, 20) of the guide frame (6) bearing against a corresponding contact surface (18) of the fixing section (18) is aslant relative to the longitudinal axis of the cassette (1).
- 4. A device in accordance claim 1, characterized in that the cassette lifting frame (4) is provided with lifting brackets (26) that are in mating engagement with hooks (28) of a lifting yoke (8), the hooks (28) being connected to an actuator (34), the actuator (34) being arranged so as to allow it to move the hooks (28) between a locking and a non-locking position.

# AMENDED SHEET BEST AVAILABLE COPY

5. A device in accordance with claim 4, characterrized in that the hooks 28 are formed so as to
prevent them from being pulled out of their engagements
with the lifting brackets (26) when the cassette lifting
frame (1) is placed in the lifting yoke, even if the hydraulic cylinder (34) mistakenly is operated during the
lifting operation.

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6. A method of lifting a cassette (1) into a cargo hold (14) of a ship (12), characterized in that,

during the lowering of the cassette (1) into the cargo hold (14), the guide frame (6) bears against the fixing section (18) before the cassette lifting frame (4) bears against the floor (16).